

**REMARKS**

Claims 43-99 were pending in the current application. Applicants have amended claims 43, 55, 65, 78, and 90. Reexamination and reconsideration of all pending claims are respectfully requested.

***35 U.S.C. § 103***

The Office Action rejected claims 43-51, 53-74, 76-86, and 88-99 under 35 U.S.C. §103 based on Shafer et al., U.S. Patent Publication 2002/0085271 (“Shafer 271”) in view of Shafer et al., U.S. Patent 6,842,298 (“Shafer 298”) and in further view of U.S. Patent 4,108,794 to Yonekubo (“Yonekubo”). Dependent claims 52, 75, and 87 were rejected under 35 U.S.C. §103 based on Shafer 271 in view of Shafer 298 in further view of Yonekubo and in still further view of Deutsch et al., WO 01/57563 A2.

Applicants note that FIG. 6 of Shafer 298 and all figures in Shafer 271 differ from the drawings of the present application, including but not limited to FIGs. 9-11. Applicants specifically focus on FIGs. 10 and 11 of the present application, and note that FIG. 10 includes element 1002 has two reflective surfaces, and FIG. 11 includes element 1103, which also has two reflective surfaces. Thus the present design includes a Mangin mirror group having at least one Mangin mirror element comprising two reflective surfaces. The two reflective surfaces are mirrored surfaces separated by a nonzero distance along a central axis or received light energy axis.

The Office Action had cited FIG. 1 of the Shafer 271 patent for the limitation of “at least one Mangin mirror element comprising two reflective surfaces”, stating that Shafer 271 “teaches a Mangin mirror element (41) having two reflective surfaces (above 15 and below 15). Further some reflection will occur at the air interface with element 39 due to refractive index differences.” Office Action, p. 6.

Applicants discuss each of these contentions separately. First, FIG. 1 of Shafer 297 is a cross section of the device and element 41 represents a hemispherical element with an opening (37) therein. *See, e.g.*, Shafer 271, paragraph [0010] (“A catadioptric

group includes a *concave spherical reflector...*”) and paragraph [0032] (“a ring illumination source...shines a ring ... of light ... through a Patching hole ... in the *hemispherical reflector.*” (Emphases added)). As this is a hemispherical or concave element, the “two reflective surfaces” alleged in the Office Action are actually not two reflective surfaces but rather a single surface with an opening therein. Thus Shafer 271 does not show two reflective surfaces in FIG. 1, but a single reflective surface (41) having two parts when illustrated in cross section.

With respect to surface reflection, Applicants submit that the Office Action is reading something, or interpreting something, where no disclosure or suggestion is provided in the reference. The Shafer 271 reference shows rays (dotted lines) going through lens 39 in FIG. 1 of Shafer 271, reflecting from reflective coating 41 and out through lens 39 with no other reflection from the surface of lens 39 illustrated. No surface reflection is discussed from lens 39.

The reference must disclose the claimed invention in as much detail as is recited in the claim. See, MPEP 2131; *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (“The identical invention must be shown in as complete detail as is contained in the ... claim.”) Here, no surface reflection is disclosed in the reference, but rather the contrary – the reference expressly illustrates an absence of any surface reflection from element 39.

Applicants therefore submit that FIG. 1 of Shafer 271 does not show “and at least one Mangin mirror element in the Mangin mirror group comprises two reflective surfaces...” as claimed. Reflective surface 41 is the only reflective surface in that element, despite appearing as two elements in the cross sectional view of FIG. 1. Surface reflection is not discussed or suggested in the reference but is hypothesized by the Examiner, contrary to the clear illustration (without surface reflection) provided in the Shafer 271 reference.

In any event, in an effort to move this case toward allowance in spite of these clear differences between the claims and the cited references, Applicants have amended

the claims to read “and further wherein the two reflective surfaces of the at least one Mangin mirror element in the Mangin mirror group are mirrored surfaces separated by a nonzero distance along the received light energy axis...” Claim 43, with similar amendments to all other independent claims.

Applicant submits that such a limitation is supported by the disclosure of at least FIGs. 10 and 11 of the present Specification and is missing from the cited references, including but not limited to FIG. 1 of Shafer 271.

Yonekubo is cited solely for the immersion liquid discussed therein and fails to disclose or suggest at least one Mangin mirror element in a Mangin mirror group comprising two reflective surfaces as claimed.

Thus none of the cited references, alone or in combination, disclose or suggest a design similar to that presently claimed. For this reason, Applicants submit that all claims of the present application are allowable.

Applicants also dispute the alleged combination of Shafer 271 with the different design of Shafer 298 and the immersion liquid of Yonekubo. It is as if the Office Action alleges that somehow the dual mangin mirror design of Shafer 298 could somehow be combined with the Shafer 271 design and further be combined with or employed with the immersion liquid of Yonekubo. Such a design, if it could work at all, would likely not result in a useful objective, and would fail to provide good imaging or a satisfactory image of the specimen.

Further, there is no reasoning having factual underpinnings supporting the combination of references in the manner suggested in the Office Action. It is only through the use of hindsight that such a combination could be thought feasible, and such a combination would require undue experimentation to fully and properly achieve. It is difficult to see how the designs could be combined, as the Office Action attempts, to produce a workable design having the beneficial properties claimed in the present claims.

Claims 43, 55, 65, 78, and 90, as amended, are therefore not obvious in view of Shafer 271 and Shafer 298. Claims depending from allowable claims 43, 55, 65, 78, and 90 are also allowable as they include limitations not found in the cited references. Accordingly, it is respectfully submitted that all pending claims, as amended, fully comply with 35 U.S.C. §103.

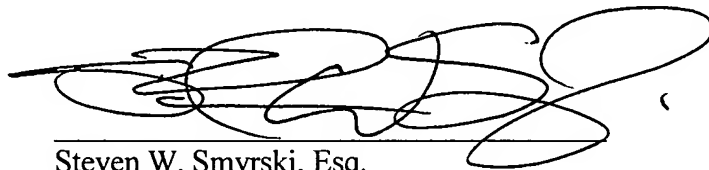
**CONCLUSION**

In view of the foregoing, it is respectfully submitted that all claims of the present application are in condition for allowance. Reexamination and reconsideration of all of the claims, as amended, are respectfully requested and allowance of all the claims at an early date is solicited.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants believe that no fees are due in accordance with this Response beyond those included herewith. Should any fees be due, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account 502026.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Steven W. Smyrski', is written over a horizontal line.

Steven W. Smyrski, Esq.  
Registration No. 38,312

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SMYRSKI LAW GROUP, A PROFESSIONAL CORPORATION  
3310 Airport Avenue, SW  
Santa Monica, California 90405-6118  
Phone: 310.397.9118  
Fax: 310.397.9158